Introduction: The diagnosis of neonatal cholestasis (NC) is urgent in order to define a specific diagnosis, as well as, to receive the appropriate treatment with vitamins' supplements.

Objectives: Understand the modification of NC aetiology in a tertiary centre, throughout 17 years.

Determine age at diagnosis, aetiology, hepatic function, need of imaging studies and hepatic biopsy.

Methods: Retrospective study of newborns and infants with NC diagnosed in a central hospital.

Results: During 17 years, were diagnosed 100 cases of NC. Median age at diagnosis was 9.5 days. The most frequent causes of NC were premature newborns under prolonged parenteral nutrition (34%), neonatal sepsis (29%), alpha-1 antitrypsin deficiency (5%) and cytomegavirus congenital infection (5%).

From those that due to jaundice, realised abdominal ultrasound to exclude biliary atresia (n = 59), 3 had biliary atresia and 9 had other alterations. Hepatic biopsy has been performed in 7 cases (biliary atresia n = 3; paucity of biliary ducts n = 1; Byler n = 1; Morsier's syndrome n = 1, idiopathic n = 1).

Thirteen patients died, 5 developed chronic hepatitis and 2 were transplanted.

Death occurred in those with neonatal sepsis (n = 4), premature newborns with prolonged parenteral nutrition (n = 4), Zellweger syndrome (n = 2) and liver failure (n = 3).

Conclusions: The majority of NC occurred in newborns and infants hospitalised in intensive neonatal unit care, due to neonatal sepsis/prolonged parenteral nutrition, in opposed to the classic aetiology of biliary atresia/alpha-1 antitrypsin deficiency.

The celerity of NC diagnosis continues to be crucial, in order to avoid delay in a biliary atresia diagnosis.

Background and aims: Triglycerides-glucose index (TyG index) has been associated with homeostatic model assessment (HOMA) index in healthy adults; this might be useful in identifying individuals at high risk of developing diabetes. Moreover, TyG-index has been related to Triglycerides/HDL ratio and cardiovascular risk. (Lee SH et al. Ann Intern Med. 2013;158(3):260–268)

Methods: Two hundred sixty-eight obese children and adolescents (Cole TJ et al 2000), mean (SD) age 10.05 (1.82) years, were studied. Anthropometry, fasting glucose and insulin, lipid profile were evaluated. HOMA and TyG index were calculated as following, respectively: [fasting Insulin (μU/ml) x fasting glucose (mmol/l)] : 22.5; Ln[fasting triglycerides (mg/dl) x fasting glucose (mg/dl)/2] (Simental-Mendia LE et al 2008).

Insulin resistance has been defined as HOMA Index > 95°p for sex and pubertal stage (D’Annunzio G et al. 2009).